

ABSTRACT

A radio communication system carrying out uplink scheduling so as to reduce interference at a base station apparatus even when there are communication terminal apparatuses in the process of soft handover. In this system, a separation section (110) of a communication terminal apparatus separates a result of demodulation of a received signal into received data and a transmit power control (TPC) command instructing an increase or decrease of transmit power, a base station selection section (120) selects a main base station apparatus having the best channel quality according to the TPC command and outputs base station selection information.

Furthermore, a transmit power control section (130) of the communication terminal apparatus determines transmit power according to the TPC command and an extra transmit power calculation section (140) calculates extra transmit power by subtracting the determined transmit power from maximum transmittable transmit power and outputs extra transmit power information. Furthermore, a selection/multiplexing section (150) of the communication terminal apparatus multiplexes transmission data, base station selection information and extra transmit power information and a transmission section (160) transmits the multiplexed data to the base station apparatus.

[FIG.2]

100 RECEPTION SECTION

110 SEPARATION SECTION

RECEIVED DATA

5 120 BASE STATION SELECTION SECTION

130 TRANSMIT POWER CONTROL SECTION

140 EXTRA TRANSMIT POWER CALCULATION SECTION

MAXIMUM TRANSMIT POWER

160 TRANSMISSION SECTION

10 150 SELECTION/MULTIPLEXING SECTION

TRANSMISSION DATA

[FIG.3]

200 RECEPTION SECTION

15 210 SEPARATION SECTION

RECEIVED DATA

220 SIR MEASURING SECTION

230 RECEPTION QUALITY ESTIMATION SECTION

250 COMMUNICATION TERMINAL SELECTION SECTION

20 260 MCS SELECTION SECTION

240 TPC COMMAND GENERATION SECTION

TARGET SIR

280 TRANSMISSION SECTION

270 MULTIPLEXING SECTION

25 TRANSMISSION DATA

[FIG.4]

- 200 RECEPTION SECTION
- 210 SEPARATION SECTION
- RECEIVED DATA
- 220 SIR MEASURING SECTION
- 5 230 RECEPTION QUALITY ESTIMATION SECTION
- 250 COMMUNICATION TERMINAL SELECTION SECTION
- 260a MCS SELECTION SECTION
- HANDOVER INFORMATION
- 240 TPC COMMAND GENERATION SECTION
- 10 TARGET SIR
- 280 TRANSMISSION SECTION
- 270 MULTIPLEXING SECTION
- TRANSMISSION DATA

- 15 [FIG.5]
- 200 RECEPTION SECTION
- 210 SEPARATION SECTION
- RECEIVED DATA
- 300 INTERFERENCE POWER ESTIMATION SECTION
- 20 220 SIR MEASURING SECTION
- 230 RECEPTION QUALITY ESTIMATION SECTION
- 250 COMMUNICATION TERMINAL SELECTION SECTION
- 260b MCS SELECTION SECTION
- 240 TPC COMMAND GENERATION SECTION
- 25 TARGET SIR
- 280 TRANSMISSION SECTION
- 270 MULTIPLEXING SECTION

TRANSMISSION DATA